

ABSTRACT OF THE DISCLOSURE

A drain-extended metal-oxide-semiconductor transistor (40) with improved robustness in breakdown characteristics is disclosed. Field oxide isolation structures (29c) are disposed between the source region (30) and drain contact regions (32a, 32b, 32c) to break the channel region of the transistor into parallel sections. The gate electrode (35) extends over the multiple channel regions, and the underlying well (26) and thus the drift region (DFT) of the transistor extends along the full channel width. Channel stop doped regions (33) underlie the field oxide isolation structures (29c), and provide conductive paths for carriers during breakdown. Parasitic bipolar conduction, and damage due to that conduction, is therefore avoided.